

Following the scale-analysis procedure outlined in Section 2.1.2, show that the dimensionless form of (2.18) is (2.19), and then, that (2.19) can be reduced to

$$\frac{Dw}{Dt} = -\frac{1}{\rho} \frac{\partial p}{\partial z} - g ,$$

which is the starting point for (2.23).